



#8/a  
Harry  
PATENT

Docket No.: 201040/1020

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Jan 30, 01

Applicant(s) : Alam et al.

Serial No. : 09/455,978

Cnfrm. No. : 5811

Filed : December 6, 1999

For : HEME PROTEINS HEMAT-*HS* AND  
HEMAT-*BS* AND THEIR USE IN  
MEDICINE AND MICROSENSORS

Examiner:  
H. Schnizer

Art Unit:  
1653

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents  
Washington, D.C. 20231

Box: Sequence

Dear Sir:

Please amend the above-identified patent application as follows:

In the Specification:

Please delete the paragraph extending from page <sup>19</sup>~~20~~, line 19 to page <sup>20</sup>~~21~~, line 4,  
and replace it with the following paragraph:

a  
1  
The HtrVIII is a positive aerotaxis transducer in *H. salinarum* (Brooun et al., J. Bacteriol., 180:1642-1646 (1998), which is hereby incorporated by reference). A strain deleted for the *htrVIII* gene lacks positive aerotaxis while a strain overproducing the protein shows an enhanced aerotactic response. To investigate the possible role of HemAT-*Hs* and HemAT-*Bs* in aerotaxis, deletion mutants of these genes were constructed (Brooun, Ph.D thesis. University of Hawaii, Hawaii (1997), which is hereby incorporated by reference) for the construction of *hemAT-Hs* deletion strains. Construction of overexpression of *hemAT-Hs* in *H. salinarum*: *NdeI* and *XbaI* restriction sites were used to clone the *hemAT-Hs* gene into the *E. coli-H. salinarum* shuttle vector pKJ427. Top primer with *NdeI* cutting site